




OFFICE OF THE FEDERAL COORDINATOR  
FOR METEOROLOGICAL SERVICES AND SUPPORTING RESEARCH

SUITE 1500, 8455 COLESVILLE ROAD  
SILVER SPRING, MARYLAND 20910

August 7, 2006

MEMORANDUM FOR: All Holders of Federal Meteorological Handbook No. 12  
United States Meteorological Codes and Coding Practices

FROM:   
Samuel P. Williamson  
Federal Coordinator for Meteorology

SUBJECT: Change 1 to Federal Meteorological Handbook No. 12  
Effective September 1, 2006

The attached Change 1 to Federal Meteorological Handbook No. 12 (FMH-12), *United States Meteorological Codes and Coding Practices*, original publication, dated December 1998, consists of two additional paragraphs to a section in Part A: Atmospheric, Chapter 1, PILOT REPORTS. These changes allow the use of latitude and longitude reporting of the location (/OV) variable, to be used for manned aircraft and unmanned aerial vehicles flying overseas or over water locations.

Attachment

Change 1  
September 1, 2006

**FEDERAL METEOROLOGICAL HANDBOOK NO. 12**

**UNITED STATES METEOROLOGICAL CODES AND CODING PRACTICES**

**Section Change**

**Chapter:** Chapter 1 PILOT REPORTS  
**Section:** 1.4.1.2  
**Pages:** A-1-2 to A-1-3  
**Action:** Replace entire section with the following text below. The highlighted text are new additions.

**1.4.1.2 Location (/OV).** After the TEI, describe the point at which, or the line along which, the reported phenomenon or phenomena occurred by reference to a VHF NAVAID(s) or an airport using the three- or four-letter location identifier. (**NOTE:** some weather processing systems may drop the leading “K”, “P”, or “H” on the location identifier and display only the 3-letter identifier). If appropriate, the identifier is followed by the radial bearing and distance from the NAVAID or airport. Using three-digits each, indicate the magnetic bearing direction in degrees followed by the distance in nautical miles.

FORMAT: /OV\_LOC/AIRPORT or NAVAID(RRRDDD)(-AIRPORT or NAVAID(RRRDDD)

LOC/AIRPORT or NAVAID is the three- or four-letter location identifier for the airport or three- or four-letter identifier for the VHF NAVAID. RRR and DDD are the magnetic bearing and distance from the location, respectively. Notice the lack of a space between location and RRRDDD and also before and after the hyphen when two AIRPORTS/NAVAIDs are reported. Contractions, such as DURGC, or statements, such as AT TOP OF CLIMB, shall not be used in this field, but may be added as Remarks (/RM). A further explanation of distance, reference an airport, may be added in remarks, such as "MDW 10E".

Alternatively, the location may be reported as a latitude (LAT) and longitude (LON) pair (in degrees and minutes) for cases of manned aircraft flying in overseas/over water locations where it is impractical to report using distance and direction from a NAVAID or airport, or for Unmanned Aerial Vehicles (UAV) or Unmanned Aircraft Systems (UAS) flying anywhere in the world. UAVs or UASs should not use latitude and longitude for the coastal waters of the United States, unless it is impractical to report using distance direction from a NAVAID or an airport

FORMAT: /OV\_LAT\_LON

LAT is a four-digit number (two digits for degrees followed by two digits for minutes) indicating the latitude of the aircraft, followed by the letter N (North) or S (South). LON is a five-digit number (three digits for degrees followed by two digits for minutes) indicating the longitude of the aircraft, followed by the letter E (East) or W (West).

**Examples:**

Pilot Reports Location as:

Encode:

Over Kennedy, New York Airport  
Five miles east of Philadelphia, Pennsylvania  
Airport

/OV\_KJFK

/OV\_KMXE107025/RM\_PHL\_5E  
or, /OV\_KPHL090005

Departing Hannibal, Missouri  
Along route from St. Louis to  
Kansas City, Missouri  
Ten miles southwest of Reno, Nevada Airport

/OV\_KHAE

/OV\_KSTL-KMKC

/OV\_KFMG233016/RM\_RNO\_10SW  
or, /OV\_KRNO225010

30 east of St. Louis VORTAC to 15  
Northeast of Kansas City VORTAC

/OV\_KSTL090030-KMKC045015

39 degrees and 01 minutes north latitude and  
84 degrees and 46 minutes west longitude

/OV\_3901N\_08446W